

FAST-NEUTRON TOTAL AND SCATTERING
CROSS SECTIONS OF ELEMENTAL PALLADIUM*

by

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ABSTRACT

Neutron total cross sections of palladium are measured from ≈ 0.6 to 4.5 MeV with resolutions of ≈ 30 to 70 keV at intervals of ≤ 50 keV. Differential neutron elastic- and inelastic-scattering cross sections are measured from 1.4 to 3.85 MeV at intervals of 50 to 100 keV and at 10 to 20 scattering angles distributed between ≈ 20 and 160 deg. The experimental results are compared with respective quantities given in ENDF/B-V and used to deduce an optical potential that provides a good description of the measured values.

*This work supported by the U. S. Department of Energy.